REFLECTIONS ON ALTERNATIVE FUTURES

Presented at a seminar entitled

"The Future of Alternative
Sciences in Asia : Agricultural and Health
Research and Delivery"

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by Doug Daniels
Director
Office of Planning and Evaluation
International Development Research Centre

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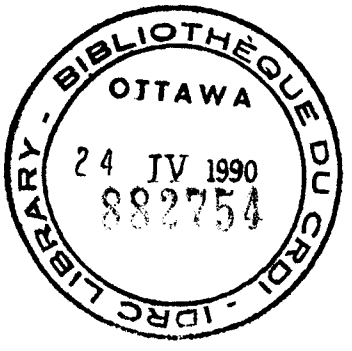

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As the final speaker, it might have been appropriate to try to synthesize some of the discussions held during this meeting. The number of issues raised, however, preclude any attempt to do so even if I was so capable. The discussions to date have demonstrated the advantages of bringing together individuals from very different fields and experience. It has sparked an exciting new set of issues and opportunities. The organizers are to be congratulated for drawing together such different viewpoints and encouraging this dialogue.

Various alternate approaches to existing research systems have been explored during this meeting. Before the closing discussions, which will attempt to integrate the various perspectives given in different papers, I would like to explore some of the broader context in which alternatives have to be assessed.

First, I'd like to turn to the issue of possible synergy between health and agriculture. There's an increasing intersection of common issues between health and agriculture. We can't remove the constraints in one area unless we address them in another sector. This is clearly one issue on which we agree.

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* Director, Office of Planning and Evaluation, International Development Research Centre. The views expressed are those of the author and do not necessarily reflect the views of the Centre.

A second reason to continue a dialogue between researchers in these two sectors is the opportunity to draw on new ideas and approaches used in the other sector. This meeting has explored some of the limitations of existing research systems. I want to expand on this by looking at some of the limitations of research planning and organization of research systems. If we look at the changing environment in most Asian countries, it seems clear that there will be even more pressures in future on existing research systems which will require changes in approach. Growing incomes and disparities in income within and between countries, environmental pressures, population aging and other changes in social and economic conditions are likely to create more demands on research systems to address a broader range of development objectives than they've had to accommodate in the past. Dick Harwoods' illustration of the changing social agenda in the Philippines is a good example. This is going to lead to conflicts between emphasizing one development objective such as economic growth over another such as environmental protection.

I believe this means we will have to move beyond technical selection criteria and develop a more political decision-making process. This also probably means more actors will have to be involved in this process. I was pleased to see how many references there were during the meeting to the need to increase participation and empower people. I was drawn particularly to the point made by Stephen Biggs that when we talk about participation, we're not just talking about farmers or villagers or other end users, we're also talking about many other actors including other researchers. It's important to try to find ways to include this larger cast of interested parties. Most formal research systems are ill prepared, at present, to address these aspects.

If one looks at the state of research planning in these two sectors, one can see that even the literature does not address many of these issues. The literature may not be a

good guide as to the best state of the art since individual countries have developed some pragmatic approaches which incorporate some of the complexity of setting priorities with different research objectives. However, little of this practical experience has been written up and available for others to build on. There are, however, some interesting differences in approach between the two sectors which offer potential for developing new and more comprehensive approaches.

Agricultural research systems have made a lot of progress in terms of a planning system because they have focused primarily on the one development objective of trying to increase productivity of land or yield. That has meant that they have been able to identify one allocation dimension that they can operate on. They've been able to classify research by output categories in such a way that they've been able to make choices using largely economic criteria. There's been considerable progress made in developing allocation models for making such choices. However, as pressure mounts for agricultural researchers to address a number of other development objectives, much of this planning process becomes less relevant and useful.

There has been perhaps more recognition in the health field that there are a number of variables which affect the state of health and therefore a number of different research determinants. But what health researchers have not done is develop a typology that allows them to classify research in an operational way that can be used for planning. Hence, no useful selection criteria for setting priorities have been developed, although some have been suggested. There's really very little in the literature on appropriate priority-setting models. Thus, there are serious weaknesses in the planning systems proposed in each sector. The lack of existing models and tools which can be used to identify weaknesses and make choices makes it more difficult to modify existing research systems. It is encouraging, however, to see that each sector has tackled different

dimensions and hence there can be benefits from drawing on the experience in other sectors.

Can existing research systems be made more responsive to some of the weaknesses explored during this meeting? One particular question was raised as to whether part of the inappropriateness of a lot of the formal research system choices are due to malignant choice by vested interests. Clearly, there are vested interests at the central research policy level and at research stations, as well as at the village level. There are dangers in pursuing this too far as focusing too much on conspiracy theories can lead to impotence. I think there are enormous opportunities to make progress by looking more systematically at some of the options for changing approaches within existing systems. There are large degrees of freedom that we're not exploiting.

I will review two specific issues that need to be taken into account in looking at modifications or alternatives to existing research systems. The first issue deals with information. There have been numerous references during this meeting to the need for better information and particularly to drawing on the knowledge and responding to the needs of users, of individual farmers and villagers. Probably the best example of the kind of humility needed by any researcher was provided by Wolfgang Linser's presentation this morning. It's almost impossible for researchers to understand the full complexity of the decision-making process and the number of variables that individuals use in making choices in any area. One good example of this arose in the multiple cropping program at IRRI which played such a leadership role in developing new approaches to farming systems research. In the early years of this program, as they tried to incorporate more and more of the decision variables that farmers were using, the whole system became so complex that they had to bring in a computer specialist. They had to revise their approach to concentrate on only a few variables. Even with the intellectual and financial

resources of a large international centre, they recognized that they could not usefully take account of the many variables individual farmers were using.

This is one of the reasons why the suggestion that we ensure that adequate information flows back up the system is extremely difficult, and to a large extent, can't be done for the big national programs. In recognition of this problem, I would make two suggestions. One, we should strongly encourage and support more research on farmer innovations, on how research innovation takes place among users. We need to try to document this more thoroughly to see its potential.

Secondly, we need to explore the advantages and disadvantages of using small decentralized research groups. Criticisms that national planners are not sufficiently informed of all the different conditions and needs that exist in rural areas is undoubtedly true. However, I'm unable to see what we can do to eliminate this problem. I'm not aware of how or where diverse local information has been synthesized in such a way that you can have realistic and sensitive reaction at the national level. We may have to encourage decentralization while still trying to maintain strong institutions.

I'd like to suggest that we review the use of the term alternatives as the theme of this workshop. I prefer not to think of alternative sciences, but really more additives. I don't think we are talking about revolutionizing or totally changing research systems so much as the need to add other dimensions. There will continue to be a need for new technology and for research at the macro or societal level. John Ratcliffe mentioned several times that the fundamental disequilibria existing now raises questions about whether we will have any human life in another hundred years. Those things have to be addressed, as well as responding to village level needs. Thus, we need research at many different levels.

On one level, we need more global and regional cooperation. In a recent IDRC study, we identified some two hundred international and regional research and research-supporting centres established since 1945 in the Third World. This whole international research system has largely grown like topsy. For researchers and policy-makers in the health area, it may be tempting, as mentioned, to see the CGIAR as a very rational comprehensive system. For many of these two hundred centres, however, it was politics and other factors that led to the choices that were made. There are major questions about how we can develop this multilateral system when, in fact, the sources of power are at the national level.

Similarly, at the national level, there are serious questions of appropriate research strategy. The multi-sectoral research model developed in the industrial countries is not feasible for a lot of developing countries. This certainly seems to be the case for the roughly 50 percent of developing countries which have a population of less than 5 million. There are significant constraints on what they can do at the national level. Can they afford to develop a critical mass in new areas like bio-technology or more traditional fields like animal sciences?

Spare a kind thought then for the research planner who has little information on what kind of choices should be made. In his address, John Ratcliffe referred to the analogy of the symphony. In setting up a symphony, you have to decide how many players you're going to hire; what kind of players; what kind of equipment; and what kind of hall you're going to be in. We really know very little about the parallel questions that arise in trying to design a research system. We really have no information on how to make multi-sectoral choices. We need a lot more research on research before we can be confident about the most appropriate research system choices.

This leads me to suggest that we should encourage a multiplicity of institutional approaches and experiments as I suspect we will not find one model that is ideal. This means supporting different kinds of institutions working at different levels, including NGOs. In spite of the general enthusiasm for NGOs mentioned during this meeting, they also have some weaknesses. As NGOs develop and some move to develop a more professional approach, they lose the spirit of voluntarism and knowledge of the grassroots. Thus, I don't think there's any magic panacea. We have to keep accepting a variety of actors and promote a creative tension and competition among them.

The last point raised during the meeting which I'd like to comment on is the role of external agents. I think it's desirable to have some interaction with external agents. Certainly, given the shortage of domestic resources, external funding agencies are going to be a factor for some time. Compared to where we were ten to fifteen years ago, there has been an enormous change in the ability of national programs to insist on and make their own choices. There is also a growing recognition by some of the donor agencies that they must respect and respond to national interests. I think that IDRC, with its international Board of Governors and staff, and its use of networks and advisory committees, shows that a variety of options exist to promote more of a partnership.

I'd like to finish with one additional suggestion in view of the number of academics here. Several speakers have urged that we get more Asian scientists to write up their own experience, but that won't help unless western academics begin to use this work. We should start saying it's not adequate to write articles on India quoting only authors from Cornell, Guelph, and Yale. There is a huge volume of national literature on agriculture in the AGRIS agricultural database and on medicine in the MEDLINE database. We should insist that Western academics search and start using writers from

the region. If they haven't done that, then they haven't done an adequate literature search. As we do book reviews and in our own writing, we should start emphasizing this issue. I think we have a responsibility to broaden the circle.